

What is claimed is:

1. A fusion splicing method for splicing optical fibers, comprising:

a fusion splicing process in which fusion splicing is performed by butting end faces of two optical fibers together; and

5 a heat treatment process in which the fusion spliced part of the optical fibers and the vicinity thereof are heated, wherein

heating in the heat treatment process is performed using an arc heating unit having a pair of opposing arc electrodes, the fusion spliced optical fibers being placed therebetween;

10 the heating center position of the arc electrodes being shifted by a relative movement with respect to the optical fibers in a direction other than the Y-axis direction (a direction perpendicular to both Z-axis direction and the opposing direction of arc electrodes) and Z-axis direction (the axial direction of the optical fibers), via the fusion spliced part in the Y-Z plane which is formed  
15 by the Z-axis direction and Y-axis direction.

2. A fusion splicing method for optical fibers according to claim 1, wherein:

the heat treatment process is performed in a manner such that the heating center position is shifted in a direction having an inclination of  $20^{\circ}$  to  
20  $45^{\circ}$  relative to the Z-axis direction; and

the heating center position is subjected to a relative movement with respect to the optical fibers when the heating center position is located at a point which is neither the fusion-spliced part nor a point that is 2 mm or more

distanced from the axis of the optical fibers.

3. A fusion splicing method for optical fibers according to claim 2, wherein the heating center position is shifted along a straight line which passes the fusion spliced part.

5 4. An optical transmission line comprising optical fibers which are spliced together by fusion splicing performed by butting end faces of the optical fibers, the fusion spliced part and the vicinity thereof are subjected to heat treatment,

10 the heat treatment being performed using an arc heating unit having a pair of opposing arc electrodes,

the fusion spliced optical fibers being placed between the opposing arc electrodes,

15 the heating center position of the arc electrodes being shifted by a relative movement with respect to the optical fibers in a direction other than the Z-axis direction (the axial direction of the optical fibers) and Y-axis direction (a direction perpendicular to both Z-axis direction and the opposing direction of arc electrodes), via the fusion spliced part in a Y-Z plane which is formed by the Z-axis direction and Y-axis direction.